**Homework 3 FORM-A Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Distance and Absolute Value Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show work on all problems will result in a LaSalle.**

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| Use the number line below to answer questions 1 – 4.  *AB*= 3 units, *BC*= 2 units,  *CD*= 4 units, *DE*= 2 units | |
| 1. What is the distance, in coordinate units, between points *A* and *B*? | 2. What is the distance, in coordinate units, between points *B* and *E*? |
| 3. How much longer is *AD* than *BE*? | 4. How much longer is *CD* than *DE*? |
| Use the description of a number line below to answer questions 5 – 6. Sketch the number line below before answering the questions. *WX*= 8 units, *XY*=11 units, *YZ*= 27 units  *On a number line, point W is located at 3, X is located at –5, Y is located at –16, and Z is located at 11.*  0 | |
| 5. What is the distance, in coordinate units, between points *W* and *Z*? (\***REMEMBER**\* *AB* + *BC* = *AC)* | 6. What is the distance, in coordinate units, between points *Y* and *Z*? |
| 7. How much longer is *WY* than *XZ*?  \***HINT**\* *WY*= *(WX) + (XY)*  XZ= *(XY) + (YZ)* | 8. How much longer is *YZ* than *WX*? |

**Mixed Review**

Rewrite the equation so that it is in *y = mx + b* form (slope intercept form).

Use the example in #1 to solve help solve 2-12.

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| 1)**5x - 3y = 9**  1st: get the y-value alone on one side of the equal sign. (-5x on each side of the equal sign)  2nd: isolate the Y by performing the opposite operation to each set of numbers on both sides of the equal sign. (divide everything by -3)  3rd: rewrite the equation in slope-intercept form. (y=5/3x+6)  -5x =-5x  -3y = -5x + 9  -3 -3 -3  y= 5/3x+6  y= m x + b | 2) |
| 3) | 4) |

Determine the slope of the line by rearranging the equation into *y = mx + b* form.

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| 5)    m = \_\_\_\_\_\_ | 6)    m = \_\_\_\_\_\_ |
| 7)    m = \_\_\_\_\_\_ | 8)    m = \_\_\_\_\_\_ |

Determine the slope of the line using the slope formula.

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| 9) | 10) |
| 11) | 12) |